

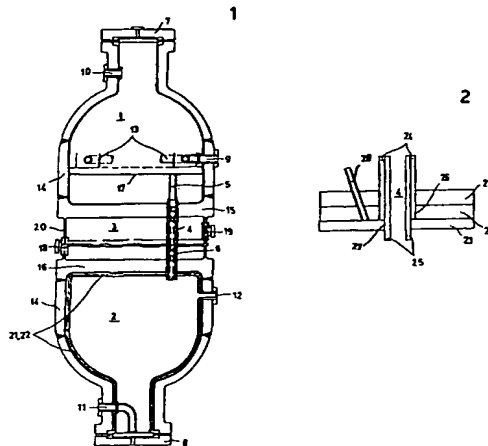
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(54) Title: TUBE BUNDLE APPARATUS FOR PROCESSING CORROSIVE FLUIDS



(57) Abstract: Tube bundle apparatus for thermal exchange operations at high pressures and temperatures, under conditions of high aggressiveness of the process fluids, wherein the tube bundle comprises a series of tubes (4) whose internal wall is essentially constituted by a material selected from titanium, zirconium or an alloy of one of these, resistant to the aggression of said fluids, in which at least one of the access chambers to the tube bundle is DELIMITED by a wall comprising at least the following three metallic layers in succession: a) an external layer (21) suitable for tolerating the pressure load, subject to corrosion by contact with said highly aggressive process fluid; b) an intermediate layer (22) made of stainless steel; (c) an anticorrosive lining (23) in contact with said highly corrosive fluid, consisting of a material selected from titanium, zirconium or an alloy of one of these. Said apparatus is particularly used as ex - changer/reactor, for example as a stripper, in the high pressure cycle of synthesis processes of urea.